establishments, types of employment, trucks and commercial automobiles garaged at these establishments, and taxis. (See Table B4 and B5)

A traffic survey for Farmville was also taken. The survey was completed by the Traffic Survey Unit of the Statewide Planning Branch. The traffic survey consists of 1991 average daily and hourly traffic counts. Traffic counts were taken at roads that crossed screenlines, stations along the planning boundary, and other specific locations for model calibration purposes. Traffic counts were taken after school openings; and before and after the opening of US 264 Freeway. Farmville was a unique model. Travel Model Analysis was computed on Farmville's existing highway system before and after the opening of US 264. Analyzing the two highway systems was very useful in detecting how travel on the existing highway changed with the implementation of the Freeway. The existing highway without the Freeway provided a check for the model with the Freeway.

## Trip Productions

Average weekday trip productions were estimated on a zonal basis in three categories: (1) trips produced by dwelling units, (2) trips produced by commercially used vehicles, and (3) trips produced by taxis. Dwelling unit trip generation rates by housing condition were estimated. Likewise, 6.7 trips per commercially owned vehicle and 40 trips per taxi were estimated. All rates were adjusted for the calibration of the model as determined by screenline checks. Specifically, the generation rates in the average and below average housing categories were adjusted. These rates needed to be increased to compensate for the low classification given in the below average category. Usually there should be more average dwelling units than below average dwelling units.

An important part of the model calibrations are screenlines. A screenline is an imaginary line drawn across a part or the entire planning area. Counts are taken at every street that crosses this line and the total volume of traffic is determined. This volume can then be compared to a similar volume obtained from the synthetic modeling process. This accuracy check will indicate if the total amount of travel on the network is correct. Final model calibration reflected the following screenline accuracy checks:

(1) Screenline A - 102% (north-south screenline following US 258)

(2) Screenline B - 108% (east-west screenline following the Norfolk-Southern Railroad)

The total trips generated by dwelling units, commercial vehicles, and taxis produce total internally generated trips. They were adjusted to account for trips made by vehicles garaged inside the planning area but with destinations outside the planning area. The adjusted internal travel was separated into three purposes: home-base work (HBW) 23%, other home-based (OHB) 55%, and non home-based (NHB) trips 22%. In addition are